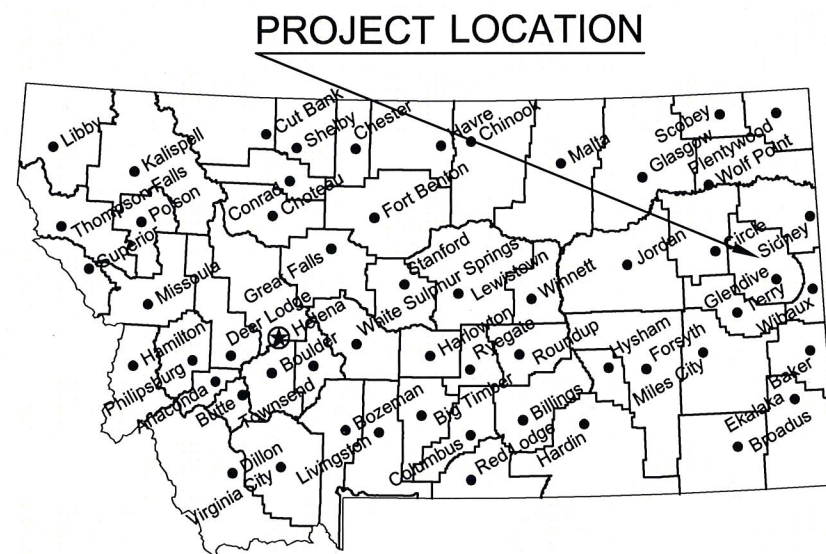


DIKE REPAIR FOX LAKE WILDLIFE MANAGEMENT AREA

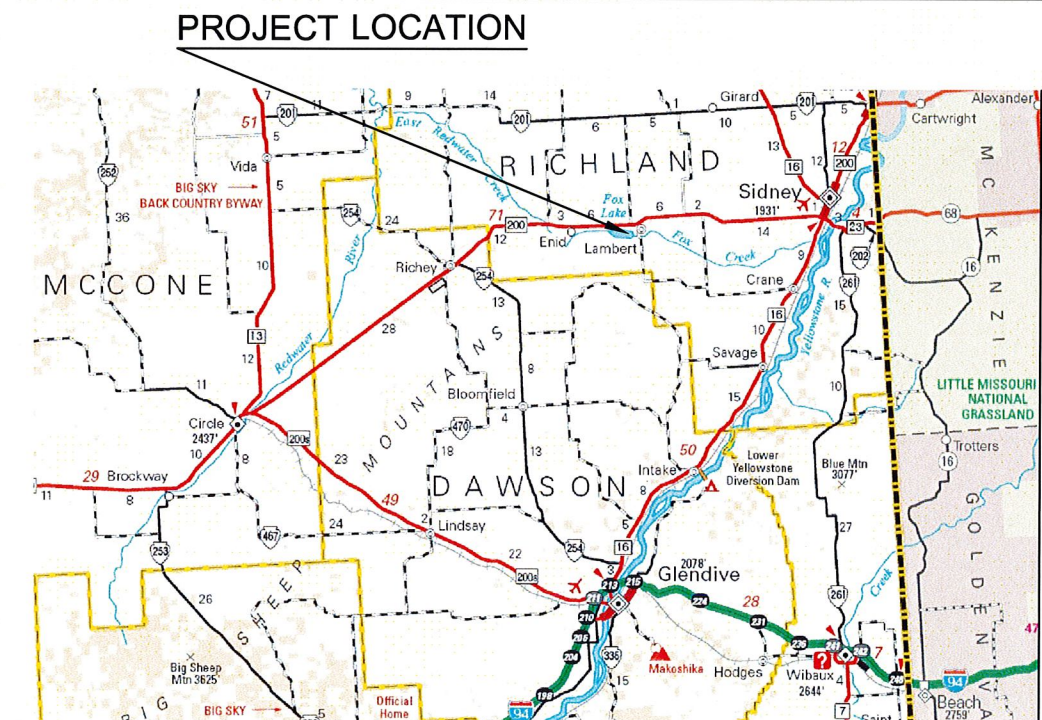
LAMBERT, MT

FWP # 7115317



Location Map

No Scale



Vicinity Map

No Scale

MONTANA FISH, WILDLIFE AND PARKS DESIGN AND CONSTRUCTION BUREAU

MAILING ADDRESS:

PO BOX 200701
HELENA, MT 59620-0701

TEL 406.841.4000
FAX 406.841.4004

fwp.mt.gov/Doing_Business/Design&Construction

PHYSICAL ADDRESS:

1522 9th AVENUE
HELENA, MT 59601

DRAWING INDEX

SHEET 1 : COVER
SHEET 2 : OVERALL SITE PLAN
SHEET 3 : SITE A PLAN AND PROFILE
SHEET 4 : SITE A CROSS SECTIONS
SHEET 5 : CHANNEL CROSSING DETAILS



J. Kevin McDonnell	1.2015				
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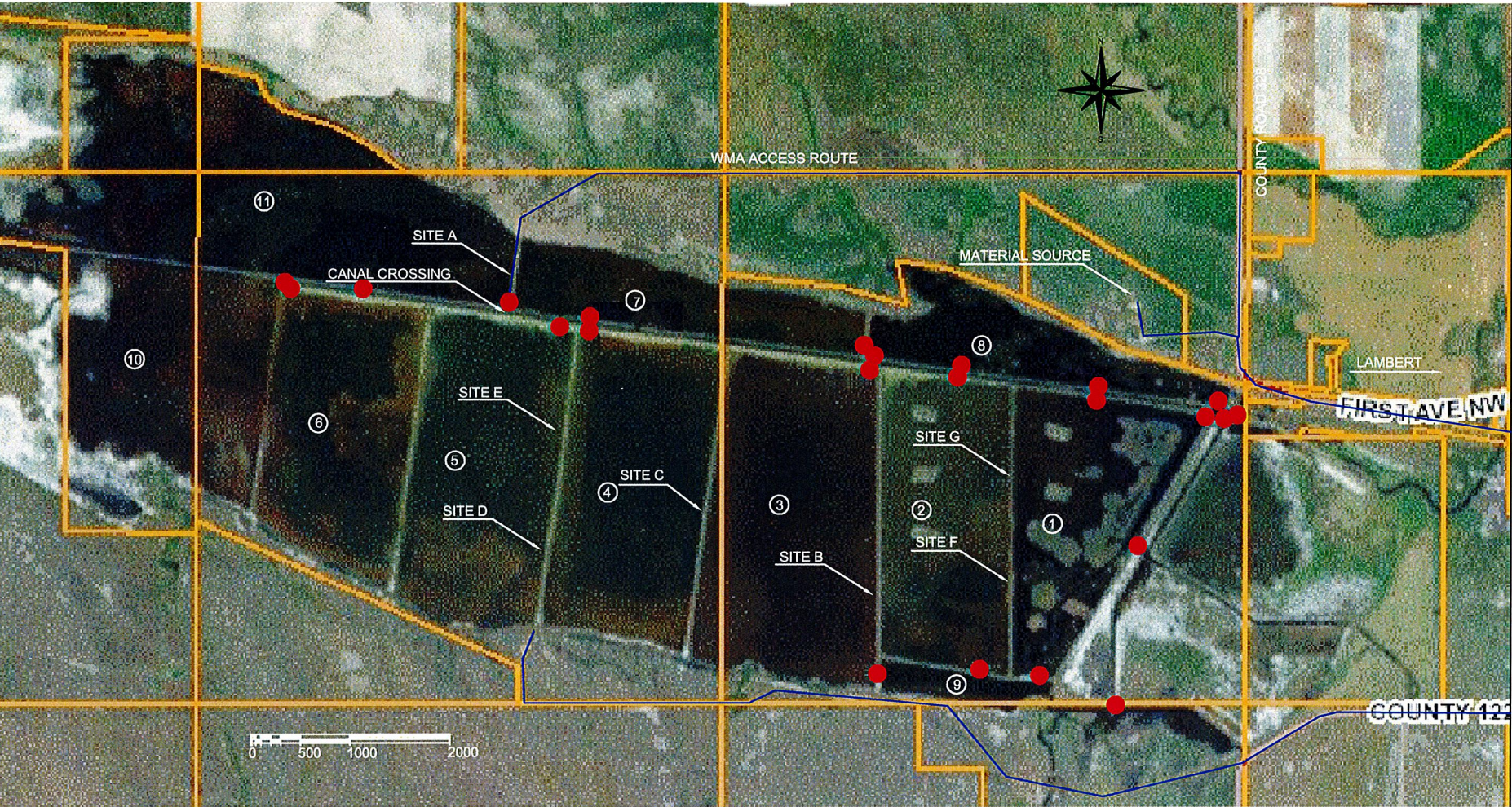
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COVER

Fox Lake WMA Dike Repair near Lambert, MT

SHEET: 1
of
5



FOX LAKE SITE PLAN
NOT TO SCALE

LEGEND

①

CELL NUMBER

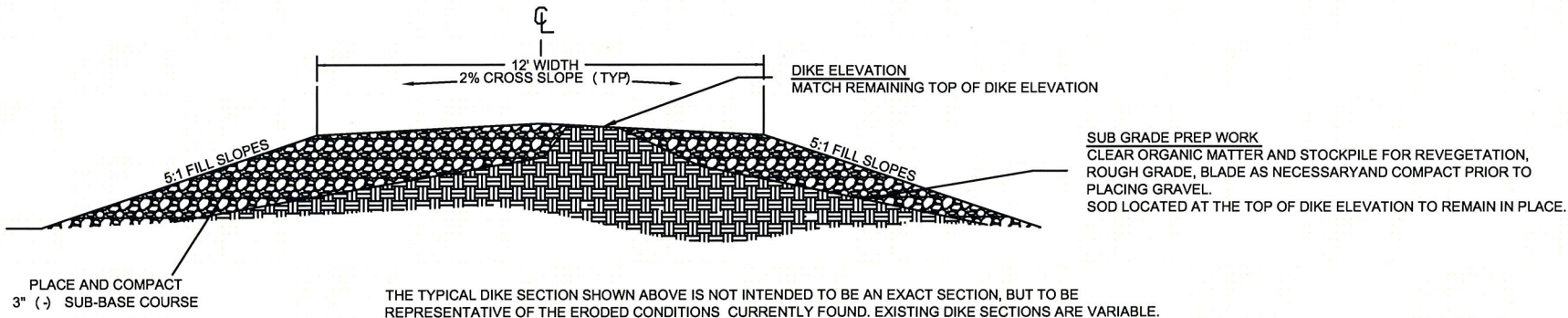
SITE 1

FEMA SITE DESIGNATION

WATER CONTROL STRUCTURE
(23) LOCATIONS

ACCESS ROUTES

FEMA Project Scope of Work - Dimension of repair Sites (length x width x depth)
SITE A: WEST SIDE 1,075 FT X 4 FT X 2 FT, EAST SIDE 1,075 FT X 2 FT X 2 FT
SITE B: WEST SIDE 582 FT X 3 X 1.5 FT, 2,472 FT X 13 FT X 1.5 FT
SITE C : 2,611 FT X 12 FT X 0.83 FT
SITE D: 310 FT X 8 FT X 1 FT
SITE E: 2,221 FT X 14 FT X 1.2 FT
SITE F: 1,958 FT X 5 FT 1.5 FT
SITE G: 103 FT X 3 FT X 0.83 FT



TYPICAL 12' DIKE REPAIR SECTION
NOT TO SCALE

Notes:

- 1) The FWP Engineer will stake FEMA designated sites, daylight points (Site A) , centerline stations of alignments (Site A) , and provide reference elevations.
- 2) The material source indicated on the Fox Lake WMA Site Plan will be the source for all the fill material for this project. The Contractor will coordinate with the FWP Engineer and Landowner to aid in providing an accounting of the material used from the source area. FWP is responsible for compensating the Landowner for the fill materials removed for the dike repair and access improvement. The Contractor shall be responsible for the protection of all facilities. All areas impacted from the removal of materials shall be leveled and seeded. Refer to Section 02936.
- 3) All areas disturbed during construction shall be seeded upon completion of work in that area. Refer to Section 02936. The seeding on the FEMA designated repair areas (Sites A - G) is not included in this contract.
- 4) The FEMA Project Scope of Work - Dimension of Repair Sites describes the length, width and depth of fill material to be placed and compacted on each site. Some rough grading may be required before fill materials are placed. Prior to rough grading, remove and stockpile topsoil for revegetation where practical, spread salvaged topsoil from the dikes on the repaired area.
- 5) Access Improvement - The quantity of material provided by Bid Item #6 to be utilized to provide additional material 1) to improve access routes, 2) on dikes to facilitate the transportation of materials and equipment to the repair areas, and 3) on dikes to build side slopes and top width. The above stated uses of Access Improvement material shall be approved by the FWP Engineer before being made by the Contractor.
- 6) Place, moisture condition and compact fill material on repair areas in lifts not to exceed 8 inches.
- 7) FWP will provide the steel culverts for the channel crossing delivered to Fox Lake WMA.
- 8) The contractor shall remove all sediment contained in the open water control structures and within a 50' radius of the inlet to the water control structures to the depth of the invert elevation of the water control structure. Removal of sediment inside of the culverts is not included in this contract.
- 9) Sediment removed from the water control structures suitable for seeding shall be placed on the dike repair areas to provide a seedbed on the fill material. Refer to Section 02936.
- 10) All excess excavated material from the sediment removal portion of the project not suitable for revegetation on repaired dikes, shall be utilized for dike repair at the nearest most accessible location.
- 11) The Contractor shall use best management practices to prevent silt, soil and debris from entering the water.
- 12) Equipment used in or near water shall not leak fluids. It shall be power washed before use on the site and examined by the engineer.
- 13) Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- 14) The contractor is responsible for locating and protecting utilities within the construction area including access routes to the construction area.
- 15) The contractor is required to notify and coordinate all work activities with the FWP Project Engineer. Public notification of partial site closure may be necessary, and requires a minimum notice of seven days.
- 16) Submittals are required on all products used in the project. refer to specifications for submittal requirements.
- 17) Provide all temporary signing, personnel and traffic control devices as required by federal, state and local regulations.
- 18) Geotechnical Information: The soils at the site are variable, and the depth to a restrictive feature is over 80 inches. Soils information is available on request.
- 19) The Owner is responsible for obtaining all necessary permits.
- 20) Prospective bidders are strongly encouraged to attend the pre-bid meeting.

J. Kevin McDonnell	2.2015				
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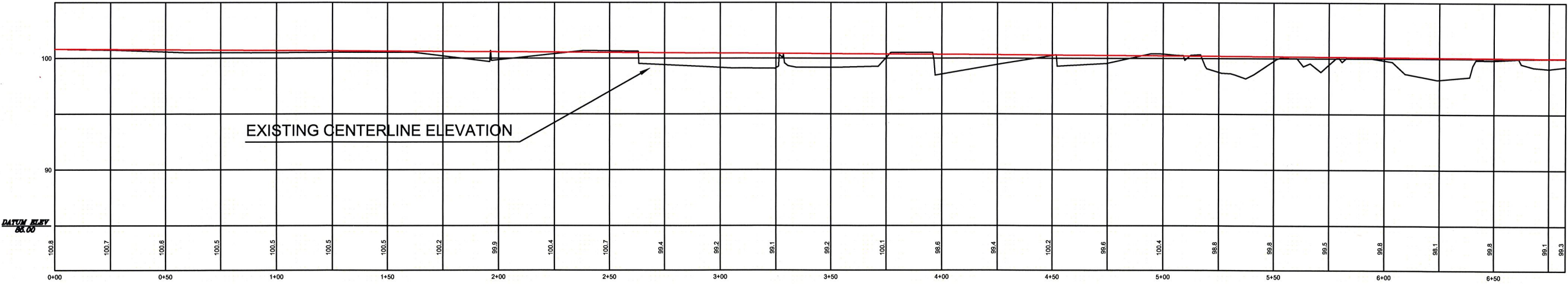
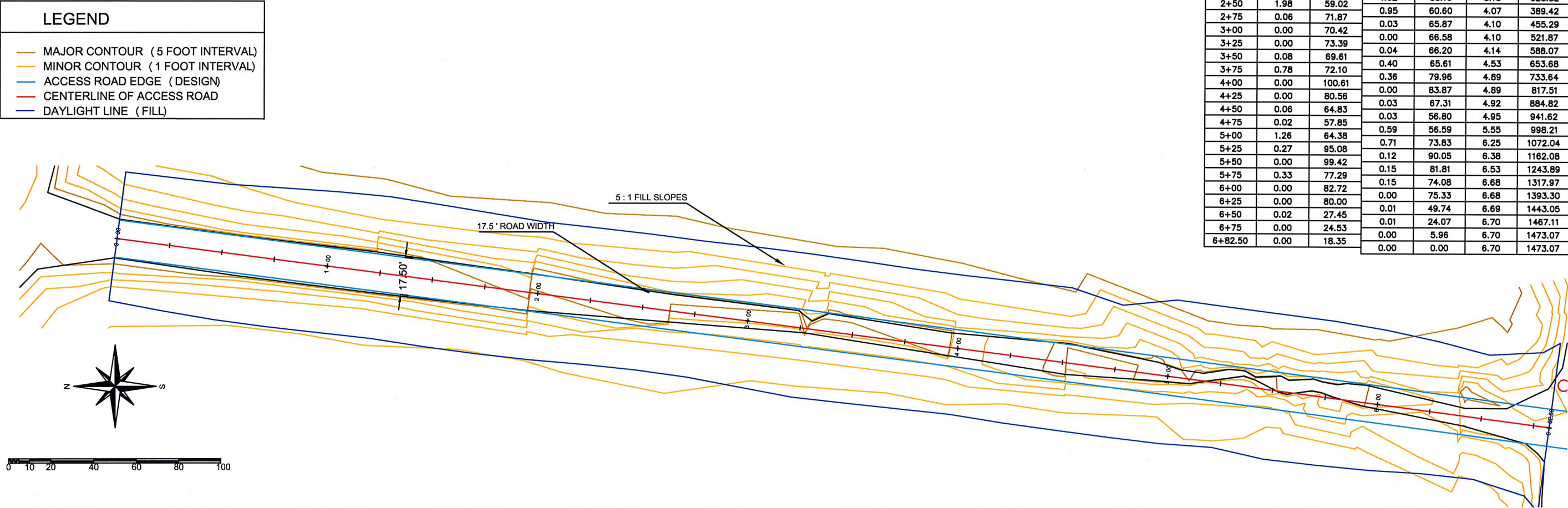
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OVERALL SITE PLAN
Fox Lake WMA Dike Repair near Lambert, MT

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of
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FOX LAKE WMA - FEMA Site A and Access Improvement

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
0+00	0.54	9.39	0.25	11.41	0.25	11.41
0+25	0.00	15.26	0.00	20.12	0.25	31.54
0+50	0.00	28.21	0.00	27.54	0.25	59.08
0+75	0.00	31.28	0.00	29.47	0.25	88.55
1+00	0.00	32.38	0.00	16.03	0.25	104.58
1+25	0.00	2.25	0.00	26.36	0.25	130.95
1+50	0.00	54.69	0.00	52.89	0.25	183.83
1+75	0.00	59.55	0.27	46.78	0.52	230.62
2+00	0.59	41.51	0.98	45.05	1.50	275.67
2+25	1.53	55.80	1.62	53.16	3.13	328.82
2+50	1.98	59.02	0.95	60.60	4.07	389.42
2+75	0.06	71.87	0.03	65.87	4.10	455.29
3+00	0.00	70.42	0.00	66.58	4.10	521.87
3+25	0.00	73.39	0.04	66.20	4.14	588.07
3+50	0.08	69.61	0.40	65.61	4.53	653.68
3+75	0.78	72.10	0.36	79.96	4.89	733.64
4+00	0.00	100.61	0.00	83.87	4.89	817.51
4+25	0.00	80.56	0.03	67.31	4.92	884.82
4+50	0.06	64.83	0.03	56.80	4.95	941.62
4+75	0.02	57.85	0.59	56.59	5.55	998.21
5+00	1.26	64.38	0.71	73.83	6.25	1072.04
5+25	0.27	95.08	0.12	90.05	6.38	1162.08
5+50	0.00	99.42	0.15	81.81	6.53	1243.89
5+75	0.33	77.29	0.15	74.08	6.68	1317.97
6+00	0.00	82.72	0.00	75.33	6.68	1393.30
6+25	0.00	80.00	0.01	49.74	6.69	1443.05
6+50	0.02	27.45	0.01	24.07	6.70	1467.11
6+75	0.00	24.53	0.00	5.96	6.70	1473.07
6+82.50	0.00	18.35	0.00	0.00	6.70	1473.07



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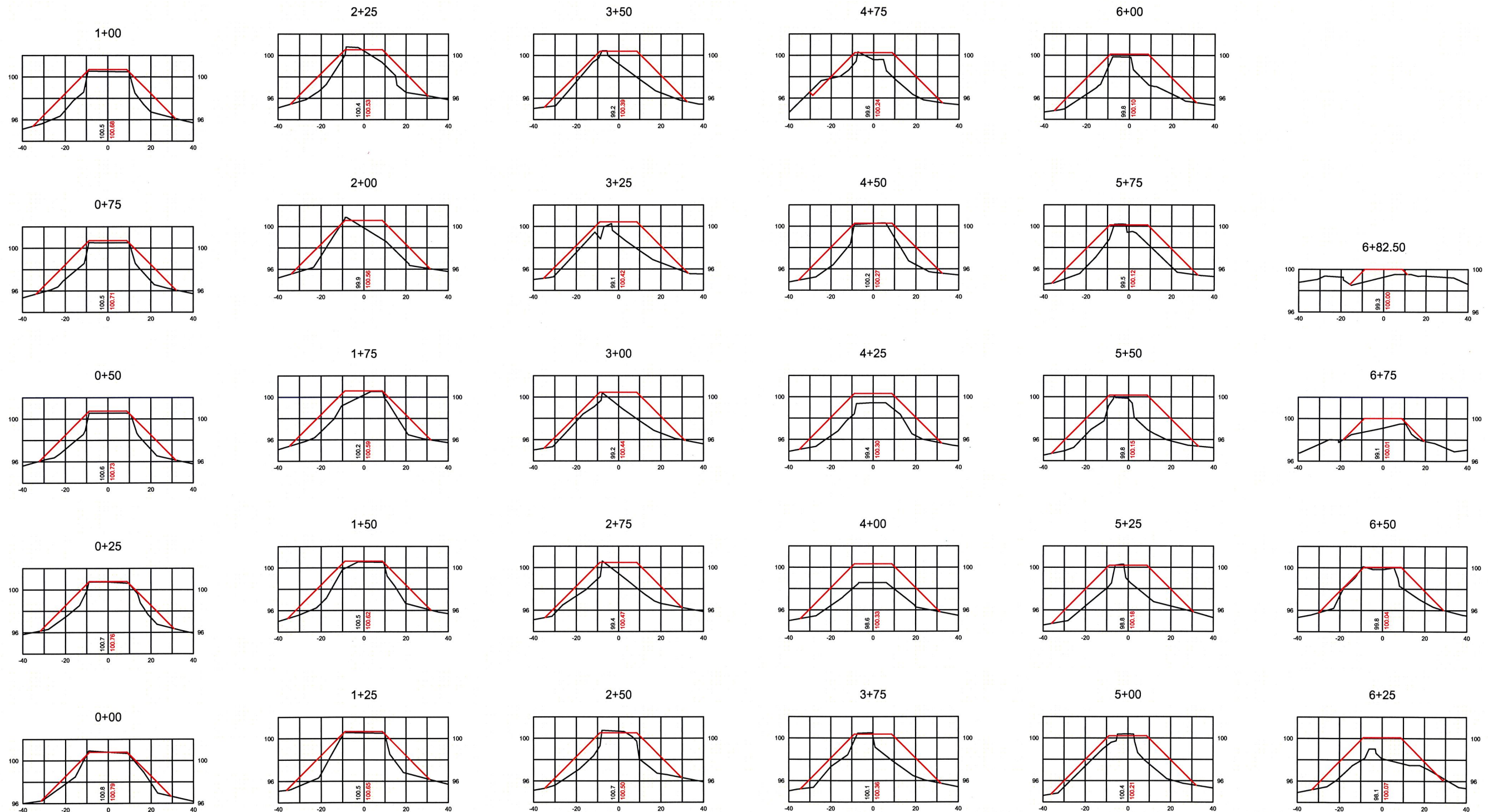


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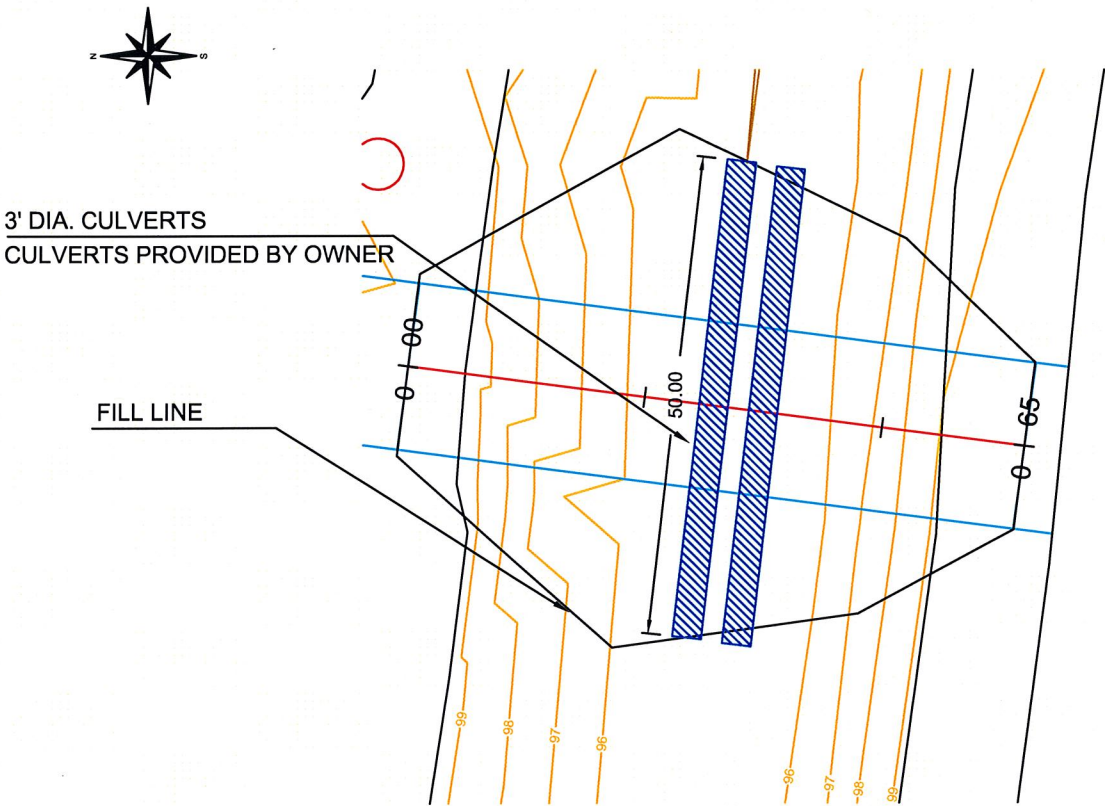
Site A Plan and Profile
Fox lake WMA Dike Repair near Lambert, MT

SHEET: 3 of 5

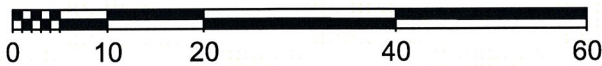
FOX LAKE WMA - FEMA Site A and Access Improvement



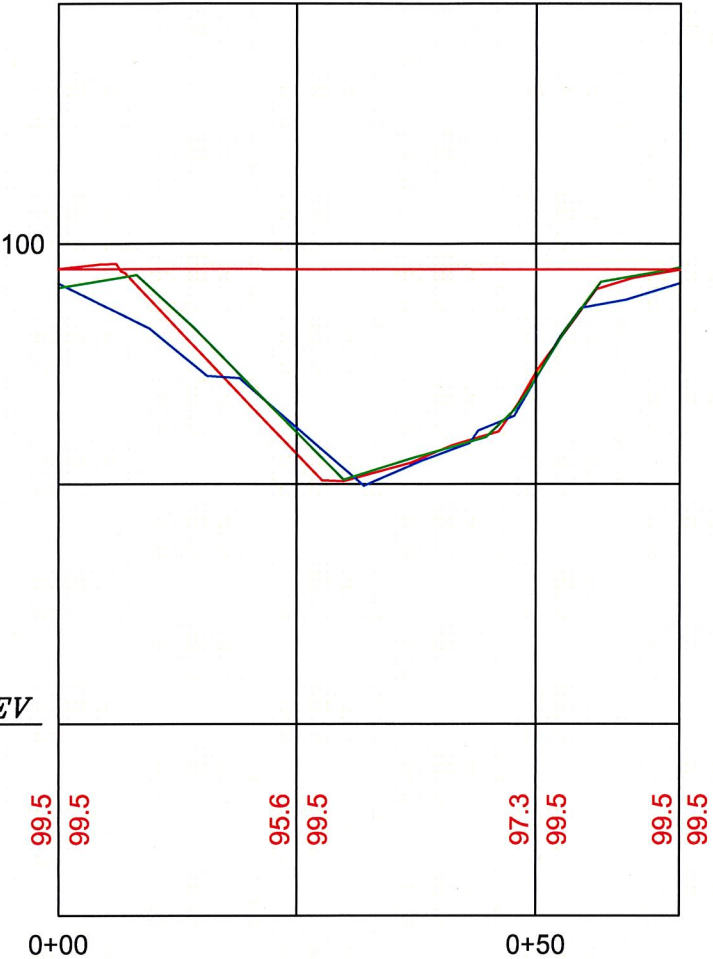
FOX LAKE WMA - Canal Crossing Access Improvement



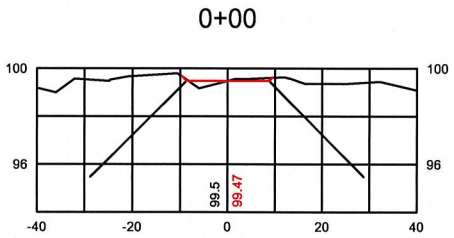
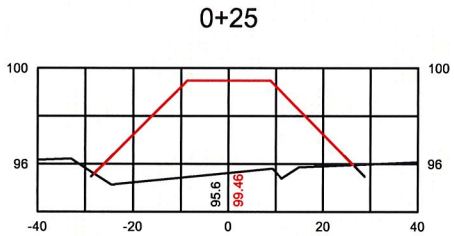
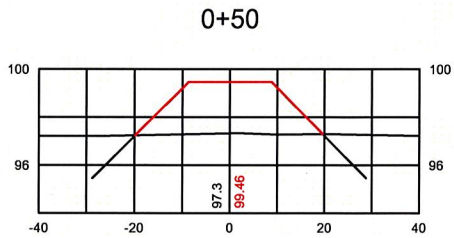
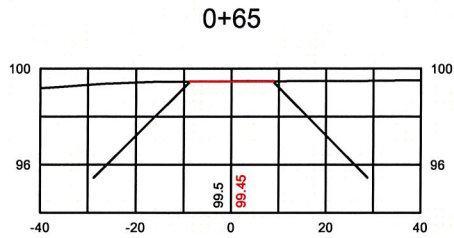
LEGEND	
	MAJOR CONTOUR (5 FOOT INTERVAL)
	MINOR CONTOUR (1 FOOT INTERVAL)
	ACCESS ROAD
	CENTERLINE OF ACCESS ROAD
	CULVERT



DATUM ELEV
90.00



99.2	96.2	97.2	99.2
99.1	96.1	97.2	99.5



STATION	AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	CUT	FILL	CUT	FILL	CUT	FILL
	0+00	0.00	0.00	68.49	0.00	68.49
0+25	0.00	147.94	0.00	97.50	0.00	166.00
0+50	0.00	62.66	0.01	17.41	0.01	183.41
0+65	0.03	0.03	0.00	0.00	0.01	183.41

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Channel Crossing Details
Fox lake WMA Dike Repair near Lambert, MT

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